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ABSTRACT

In the context of school learning, students form perceptions of their capabilities. Future task engagement and skill development opportunities are influenced by the ability to match perceptions to actual skill levels. Accurate self appraisals can evolve from methods that involve: 1) goal setting, 2) subtasks, 3) corrective modeling, 4) achievement attribution, 5) peer tutoring, 6) individual work, 7) context transfer, 8) incentives, 9) process outcomes, and 10) nongraded tasks. (Author/CJ)

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Facilitating Accurate Capability Self-Appraisal

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Abstract

In the context of school learning students form perceptions of their capabilities. Future task engagement and skill-development opportunities are influenced by how well these perceptions match skill levels. Accurate self-appraisals develop through personal experiences and social comparisons. Several activities are suggested as ways of fostering such self-knowledge.

Facilitating Accurate Capability Self-Appraisal

Cheryl was a friendly fourth-grader who I recently worked with in a research study investigating children's mathematics learning. On nominating Cheryl for inclusion in the project, her teacher described her as an underachiever who lacked self-confidence. A colleague worked with Cheryl during training, which consisted of providing Cheryl with instruction on division operations and allowing her to practice solving problems.

After training, I administered a posttest. The first instrument assessed Cheryl's perceptions of her division competencies. I showed Cheryl a series of cards on which were printed pairs of division problems in increasing level of difficulty. For each pair of problems, Cheryl judged her assuredness of being able to solve that type of problem on a scale that ranged from high uncertainty to complete certitude. Following this assessment I presented Cheryl with division problems to solve. These corresponded in form and difficulty to those she had just judged.

The results showed that Cheryl was quite skillful in division; she correctly solved 14 of the 18 problems including some that were conceptually and computationally more complex than those presented during training. On the other hand, Cheryl judged her capability to solve the different types of problems exceptionally low; almost all judgments were in the high-uncertainty region. In short, Cheryl misappraised her capabilities and consistently underestimated what she could do.

Like Cheryl, Mike also misappraised his capabilities; unlike her, Mike was an overestimator. Mike participated in the same training program but achieved only minimal skill development; on the posttest he was able to solve only 6 of 18 problems. However, his capability judgments were consistently on the upper end of the scale, at or bordering complete certitude.

While Cheryl and Mike represent entreme cases, misappraisal is not uncommon. In this research study (Schunk, 1980), children overestimated 19% of their capability judgments for problems similar to those they had been exposed to during training; for more complex problems the figure was 33%. Underestimation was less common, occurring for 5% and 3% of the judgments, respectively.

Accurate self-appraisal of capabilities is important because mismatches in either direction can have negative consequences in school. Students who overestimate their capability to perform a task are apt to become demoralized as a result of frequent failures. Those who underestimate what they can do may be reluctant to attempt tasks for fear they will fail; in so doing they preclude opportunities for skill development. Further, accuracy of self-appraisal is important for life outside of school. Although persons do not typically judge their capabilities to perform routinized tasks, accurate self-appraisal becomes important when there are changes in task demands or situational circumstances (Bandura, in press-a). In these instances, knowing what one can and cannot do can help preclude disappointments and facilitate daily living.

What Influences Self-Appraisals?

There are a number of factors that influence the development of students' self-evaluative capabilities. Students gain such self-knowledge directly through experience with tasks and indirectly through social interactions with others (Bandura, in press-a, in press-b). Because direct experience with a task generally occurs on repeated occasions, accurate self-appraisal depends in part on the ability to integrate capability information from diverse cues occurring over time. Developmental evidence indicates that with age students make increasing use of accumulative success and failure information in forming their capability judgments and are less swayed by information acquired from a

single experience with a task (Parsons & Ruble, 1977).

Self-evaluation will also be influenced by the clarity of information that students receive as they engage in activities. When clear information is provided that highlights both the source of students' deficiencies and the specific remedies, students will gain a better picture of their performance capabilities than if given more ambiguous information. In arithmetic, for example, teachers will foster self-appraisal more by demonstrating corrective operations that focus on the specific error than merely scoring a problem as incorrect, in which case students must infer the nature of the error.

Especially in school, much capability information arises from students' social comparisons with others, such as teachers and peers. Misappraisals can arise when students compare their performances to unrealistic standards. Students who score well on a test but who compare themselves to the top student may seriously underestimate their capability to succeed in the subject. Conversely, average students who compare themselves to low achievers may tend to overestimate their potentialities.

Inappropriate expectations by students may also lead to capability misappraisals. Parental pressure to succeed in school may blur students' distinction between what they can do and what they should be able to do. Such blurring can lead to serious capability overestimation. Performance feedback that indicates failure may be viewed with inappropriate concern by parents and their children; anxiety on the part of such students is not uncommon.

So far this discussion indicates that some influences on students' self-appraisal capabilities may be outside the teacher's grasp; for example, students' developmental level in processing capability information and parental standards. Yet theory and research suggest that some teaching practices provide more capability information than others and therefore can assist the development of accurate self-evaluation. These practices are discussed below.

Goal Setting

The attainment of a goal signals competence at the task; conversely, failure to achieve a goal signals that skills are lacking. But certain properties of goals provide even clearer capability information; for example, a goal that denotes specific performance requirements should foster accurate self-appraisal to a greater extent than a more general goal, such as "do your best" (Bandura, 1977; Locke, 1968). Gaa (1973) has demonstrated the utility of goal-setting conferences in promoting achievement and self-appraisal; in such conferences, teachers and students regularly confer to set goals and evaluate progress. With younger children, goals may need to be defined tangibly in terms of pages or work units completed, but for older students goals can be set in terms of mastering certain skills.

Subtasks

This activity ties in closely with goal setting. Research shows that persons who attempt to complete a series of subtasks related to a larger goal make faster progress than those who pursue the overall goal all along (Bandura & Schunk, 1980). Because progress at a subtask can be assessed more readily than progress at a more extended goal, the former signals clearer capability information and thus fosters accurate self-appraisals. To the extent that school projects can be divided into subtasks, students should be encouraged to assess the ease or difficulty encountered in completing each phase.

Corrective Modeling

Modeling can be used not only to teach skills but also to correct deficient skills. In subtraction, for example, students may know how to borrow from all numbers except zero. Teachers who demonstrate how to correct this troublesome aspect while verbalizing the correct principles provide students with clear performance information. In arithmetic, corrective modeling has been shown to facilitate accuracy of self-appraisal more than providing students with step-by-step worked

examples in response to errors (Schunk, 1980).

Attribution

Attribution refers to the perceived causes of outcomes. In achievement settings, students commonly attribute their failures to a lack of ability, low effort, or high task difficulty. Because effort is the only one of these under volitional control, students who attribute past failure to low effort should strive harder in the future (Weiner, 1977), and thereby gain more capability information than if they were to give up in response to failure. Stressing the value of effort to students results in more accurate self-appraisal than not stressing effort (Schunk, 1980). Further, misattribution can lead to capability misappraisal. For example, students who believe that they failed at a task because they lacked the ability when in fact they did not work hard enough may underestimate their capabilities in the future. Teachers should become aware of their students' attributions through observation and questioning, and should stress effort as a determinant of outcomes.

Peer Tutoring

In the process of tutoring peers, students receive valid information about their own capabilities in the subject area. Students who experience difficulty explaining concepts to others learn where they lack proficiencies, while those who facilely explain principles and offer correction receive confirmatory evidence concerning their competency in the subject. Serving as a tutor would be especially beneficial for low-achieving students who have recently developed skills, as given their history of failure, they may underestimate their capabilities and require especially clear feedback.

Individual Work

Students who work on a task by themselves form a clearer perception of their competencies than those who work with peers or the teacher, because when one works with others it is difficult to segregate individual performance accomplishments

from those of the aggregate. Subsequent self-appraisals of individual capabilities may be either low if students believe they contributed little to the group's efforts or high if they overvalue their personal contributions. Unless the purpose of the task is better served through a collective performance, accuracy of self-appraisal is facilitated more through individual accomplishments.

Transfer

Students who apply their skills in a variety of settings will develop more insight into their strengths and weaknesses than students who repeatedly apply a skill in the same context. For example, students who also write sentences using new vocabulary words learn more about their understanding of the meanings of the words than students who only write dictionary definitions for the words. The multiplicity of contexts gives students more cues on which to base their self-appraisals and thereby promotes accuracy. Though teachers routinely attempt to promote transfer to increase skills, in the process they will also facilitate accurate self-knowledge.

Incentives

Much research has shown that providing incentives contingent on successful performance at an initially high-interest task serves to undermine subsequent interest in the task (Deci, 1975). When interest in a task is initially low, however, rewards may help promote task engagement and skill development, which in turn promote interest. Further, as students work on tasks and earn incentives they also gain competency information. Students who regularly perform well enough to earn an incentive learn that they are becoming more skillful, while those who fall short learn that their skills require further development. Although some teachers may prefer to avoid the use of incentives, their judicious use as students are developing skills should promote accurate self-appraisals.

Process Outcomes

Teachers who stress process as well as product outcomes will aid the

development of accurate self-appraisals because as students attend to and learn the constituent operations involved in the mastery of a skill they become better able to discriminate their strong and weak areas. When emphasis is placed only on finished products, errors in self-appraisal are apt to occur. A low grade on an essay rarely means that all aspects of the writing were weak; yet students may prove reluctant to attempt such papers in the future. Conversely, when students rush through an assignment so that they can go to recess they may subsequently overestimate their capabilities in the subject because they finished so much work in so little time, though at the expense of accuracy. Teachers who give extensive credit for partially-correct work help to stress the process-product distinction to students and thereby promote self-knowledge.

Nongraded Tasks

When teachers allow students time to engage in tasks that are not part of the regular curriculum students gain added experience in capability appraisal. Nongraded tasks relieve the evaluation pressures that students may feel. While working on such tasks, students may concentrate less on the outcome and may focus more on the process and the progress they are making. By attending to the ease or difficulty they experience as they work on the task, students develop the capability to appraise their skills (Bandura, 1977). The absence of evaluation helps to promote accuracy in such appraisals.

Conclusion

Teachers need to consider factors such as the grade level, subject matter, and available time, in deciding which techniques to use to improve their students' self-appraisal capabilities. Nonetheless, the provision of valid capability indicators to students seems a worthwhile adjunct to instruction aimed at skill development. Whether or not students perform their skills depends in part on how they appraise them, and to the extent that teachers assist the formation of appraisals, they will also promote subsequent success in- and out-of-school.

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